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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,969	01/16/2002	Bruce Gilbert Cortez	2001-0110	3895

7590 01/11/2006

Samuel H. Dworetsky  
AT&T CORP.  
P.O. Box 4110  
Middletown, NJ 07748-4110

EXAMINER
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NGUYEN, STEVEN H D

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 01/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/047,969

Applicant(s)

CORTEZ ET AL.

Examiner

Steven HD Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 7-9 is/are rejected.
- 7) ☒ Claim(s) 6 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 5 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As claims 5 and 9, “said determining step” is vague and indefinite because it’s unclear if both or which determining step uses the Dijkstra algorithm.

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2, 4 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Shi (IEEE).

Regarding claims 1-2, Shi discloses a method of determining a path of a connection between at least two nodes in a SONET/SDH network (Page 322, left col. SONET) comprising assigning to a network link a service weight and a restoration weight (Page 327, lines 9-12 and Page 327, Fig 4 discloses each link in the network is assigned a working capacity “service weight” and spare capacity “restoration weight” to be used in computing a service path “A-B-D”

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and restoration path “A-C-D”; See page 327, the Par between left and right col.), determining a service path of at least one link using the service weight (Page 327, the Par between left and right col. computing a service path “A-B-D” based on working capacity), determining a restoration path of at least one link using the restoration weight (Page 327, the Par between left and right col. computing a restoration path “A-C-D” based on spare capacity), and transmitting information in the network on at least one of the service and restoration paths (It is inherently disclosed data transmits on at least one of the working and restoration paths).

Regarding claims 4 and 8, Shi discloses said service path is used in provisioning service circuits in the network and said restoration path is used to restore at least one failed service circuit in the event of a network failure (Fig 4, working path and restoration path).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3, 5, 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shi in view of Huang (USP 6301244).

Regarding claim 3 and 7, Shi fails to disclose assigning quality of service metrics to each network link, and eliminating links that do not meet the quality of service requirements. In the same field of endeavor, Huang discloses a method and system for assigning quality of service metrics to each network link, and eliminating links that do not meet the quality of service

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requirements (See Abstract, Fig 16, Ref 1602, 1604, 1608 and 1610 the link delay or cost exceeds delay or cost constraint D or cost is eliminated).

Since, Shi suggests a cost function based on distance and cost . Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention was made to apply a constraint value to a link in order to eliminate the link that does not meet a requirement as disclosed by Huang into the teaching of Shi. The motivation would have been to obtain a shortest path that meet a requirement.

Regarding claim 5 and 9, Huang said determining steps further comprises using the Dijkstra algorithm (Fig 3, Ref 302).

#### ***Allowable Subject Matter***

7. Claims 6 and 10 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior arts fails to discloses said determining step, a service weight is assigned to each link to prioritize finding a shortest possible service path and a restoration weight is assigned to each link to find a restoration path with the maximum available capacity.

#### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dighe (USP 6141319) discloses a link based alternative routing scheme for a network restoration under failure.

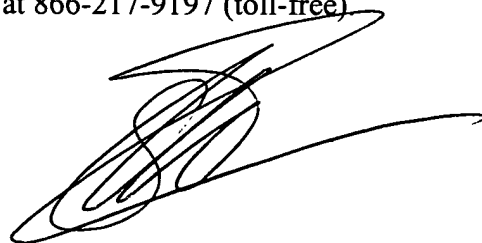
Kasdan (USP 6847607) discloses an automatic provision of protection circuits in a communication network.

Seid (USP 5754543) discloses a connectivity matrix based multi-cost routing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven HD Nguyen whose telephone number is (571) 272-3159. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (571) 272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'Steven HD Nguyen', with a long horizontal line extending to the right.

Steven HD Nguyen  
Primary Examiner  
Art Unit 2665  
January 5, 2006